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EXAMINER

CHANNAVAJALA, LAKSHMI SARADA

ART UNIT	PAPER NUMBER
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1615

DATE MAILED: 02/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/821,480

Applicant(s)

CANNELL ET AL.

Examiner

Lakshmi S Channavajjala

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-120, 152-155 and 161-163 is/are pending in the application.
- 4a) Of the above claim(s) 41-120, 152-155 and 163 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40, 161 and 162 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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DETAILED ACTION

Receipt of amendment to specification & claims; remarks and oath all dated 10-21-03 is acknowledged.

Claims 1 and 161 have been amended. Claims 1-40, 161 and 162 are considered for examination. Claims 41-120, 152-155 and 163 are withdrawn from consideration.

The following is anew rejection in view of the amendment dated 10-21-03:

Claim Rejections - 35 USC § 112

Claims 1-40, 161 and 162 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Instant claims recite the limitation "with the proviso that the at least one film-forming agent is not hydroxypropyl methylcellulose", which is a new matter because while the specification lists (in particular, the current amendment to specification) a number of anionic and cationic polymers that are suitable as film-forming agents in the instant invention. However, the specification does not anywhere state that the above polymers list exclude hydroxypropyl methylcellulose (HPMC). Instant specification does not state that the film-forming agents claimed are limited to those listed. Accordingly, the instant expression of excluding HPMC constitutes new matter. If applicants intend to exclude HPMC as a film-forming agent, it is suggested that applicants list all the polymers describe in the specification in the instant claims.

The following rejection of date 5-21-03 has been maintained:

Claims 1-2, 5, 10, 11, 25, 27-30, 37-39 and 161 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,660,838 to Koga et al (Hereafter Koga, submitted on PTO-1449).

Koga discloses external use preparations comprising xylobiose, in amount of 0.0001 to 20%, preferably 0.1 to 10%. Example 7 (col. 10) of Koga is specifically directed to a hair shampoo, with 8.9% xylobiose. Koga discloses the composition in the form of a cream, lotion, ointment etc (col. 10, claim 3) and also discloses addition of cosmetic additives such as polyethylene glycol monostearate (example 7 and col. 2-3), which reads on the claimed additive (claim 150). Example 7 recites hydroxymethylpropyl cellulose, which reads on nonionic film-forming agent.

Instant claims recite the limitation "for durable non-permanent shaping", which is an intended use that carries no patentable weight. Koga discloses the claimed amounts of xylobiose in the hair compositions and accordingly the ability to impart the claimed effect is inherent to Koga. Therefore, Koga anticipates the instant claims.

Claim Rejections - 35 USC § 103

Claims 1-4, 10-40, 161 and 162 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pub. No. US 2002/0031483 A1 to Beck et al (hereafter collectively Beck).

Beck teaches a hair treatment composition comprising a compound chosen from a TCA cycle intermediate, a carbohydrate, a sugar, a fatty acid product or a glycolysis product. Appropriate sugars include trioses such as glyceraldehydes (aldose), and

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dihydroxyacetone (ketose), tetroses such as erythrose, threose, and erythrulose, pentoses such as ribose, arabinose, xylose, lyxose, ribulose and ribulose phosphate and xylulose, which read on instant claims 121-135. Further, Beck teaches Furanoses, pyranoses, phosphate derivatives of sugars (page 1, paragraph 0015). In col. 2, paragraph 0041, Beck teaches the film-forming cationic polymers such as Polyquaternium 16, which is also claimed. Beck also teaches that the composition preferably contains 0.01% to 0.5% of the useful compounds (page 1, paragraph 0018), which falls within the claimed range of 0.01% to 10%. Beck teaches the compositions in the form of a shampoo or used in a conditioner composition, which read on the instant dispersion or emulsion (page 1, paragraph 0020). Further, Beck suggests addition of suitable surfactants, polymers, conditioning agents, adjunct materials and water to the compositions (pages 2 and 3, and examples 4-9 on page 5).

Beck teaches that the composition is used for hair treatment, in particular for oxygen consumption of hair follicle and thus stimulating the hair growth. Beck does not teach instant durable non-permanent shaping of hair. However, as explained the recitation of intended use does not carry patentable weight in composition claims. Further, amount of compounds taught by Beck is within the claimed range of monosaccharides.

Accordingly, it would have been obvious of one of an ordinary skill in the art at the time of the instant invention to use the monosaccharides i.e., trioses, tetroses etc., containing various cosmetic additives such as cationic polymers (Polyquaternium series of compounds) in the hair treatment composition in the range of 0.01 to 0.5% with an expectation to stimulate the growth of hair follicle because Beck suggests that the sugars provide the required oxygen supply for the growth of hair follicle.

While Beck does not recognize the claimed effect, Beck teaches sugars in the same amounts as claimed. Accordingly, absent showing evidence to the contrary, the hair compositions containing 0.01% to 0.5% of sugars such as trioses or tetroses possess the ability to impart the claimed durable non-permanent shaping of hair fibers.

Claims 1-40, 161 and 162 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,690,924 to Keil et al (Keil) in view of Pub. No. US 2002/0031483 A1 to Beck et al (hereafter collectively Beck).

Keil teaches hair treatment compositions comprising chitosan, 2-pyrrolidone carboxylic acid and anionic or nonionic film forming polymers or other natural film forming polymers for increased combability, care and fixing of hair. Among the film-forming polymers, Keil suggests the polymers of the instant claims (col. 2, lines 35-61) such as LUVISKOL. The examples of Keil are directed to hair compositions (hair fixing as well as a shampoo with hair fixing action-example 10) and contain various film-forming polymers (see col. 5-8). Keil teaches cosmetic additives of the instant claims but does not teach the instant monosaccharides.

Beck, discussed above, teaches a hair treatment composition comprising a compound chosen from a TCA cycle intermediate, a carbohydrate, a sugar, a fatty acid product or a glycolysis product. Appropriate sugars include trioses such as glyceraldehydes (aldose), and dihydroxyacetone (ketose), tetroses such as erythrose, threose, and erythrulose, pentoses such as ribose, arabinose, xylose, lyxose, ribulose and ribulose phosphate and xylulose, which read on instant claims 121-135. Further, Beck teaches Furanoses, pyranoses, phosphate derivatives of sugars (page 1, paragraph 0015).

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In col. 2, paragraph 0041, Beck teaches the film-forming cationic polymers such as Polyquaternium 16, which is also claimed. Beck also teaches that the composition preferably contains 0.01% to 0.5% of the useful compounds (page 1, paragraph 0018), which falls within the claimed range of 0.01% to 10%.

Accordingly, it would have been obvious of one of an ordinary skill in the art at the time of the instant invention to use the monosaccharides i.e., trioses, tetroses etc., containing various cosmetic additives such as cationic polymers (Polyquaternium series of compounds) of Beck in the in the hair treatment composition of Keil containing the film-forming polymers for fixing and as well as shampooing the hair, with an expectation to stimulate the growth of hair follicle because beck suggests that the sugars provide the required oxygen supply for the growth of hair follicle because Beck suggests that the sugars provide the required oxygen supply for the growth of hair follicle. Further, supplying a hair fixing or a shampoo composition in the form of gel or lotion or others read on the instant kit claims.

Response to Arguments

Applicant's arguments filed 10-21-03 have been fully considered but they are not persuasive.

KOGA- 102(b)

Applicants state that independent claims 1 and 161 have been amended to add "with the proviso that the at least one film forming agent is not hydroxypropyl methylcellulose." Applicants believe that adding this proviso is fully supported by the specification as filed. By excluding hydroxypropyl methylcellulose from the scope of the

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claims, Applicants state that they are simply claiming less than the full scope of their disclosure – “a legitimate procedure for inventors entitled to decide the bounds of protection they seek”. Applicants argue that Koga teaches HPMC as a thickener and not a film-forming agent and further, in view of the limitation “with the proviso..”, Koga fails to anticipate the instant claims. Applicants arguments are not persuasive because instant claims are directed to a composition and irrespective of what the reference uses HPMC for (as a thickener or a film-forming agent), the reference teaches same material as agreed by applicants and therefore, the HPMC of prior art functions both as a thickener as well as a film former. With respect to the argument that instant amendment renders the rejection, as explained in the new rejection the specification has been amended to recite the polymers suitable as film-forming agents. However, while the list does not include HPMC, the specification does not anywhere state that HPMC is excluded from the list film forming agents. Should applicants desire to claim the full scope by excluding HPMC, as suggested earlier, applicants need to list all the film-forming agents that fall under the scope of the claim.

BECK- 103:

Applicants argue that Beck fails to specifically suggest the desirability of C3-C5 saccharides from the trioses to hexoses. However, applicants have not provided any unexpected results with C3-C5 sugars as opposed to C6 sugars. Absent any criticality, one of an ordinary skill in the art would expect the sugars in the range of trioses to hexoses to show the same effect. Applicants argue that there is no suggestion that the polymeric cationic conditioning agents of Beck must be film-forming agents, much less the composition containing a film-former and C3-C5 saccharides. However, Beck teaches

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the film-forming cationic polymers such as Polyquaternium 16, which is also claimed. Applicants state that one has to pick and choose from a myriad of possibilities of Beck in order to arrive at the invention. However, Beck also teaches the composition for hair treatment and for conditioning. Besides, irrespective of the fact that Beck recognizes Polyquaternium for film-forming the property is implicit for the compound. Accordingly, one of an ordinary skill in the art would have achieved the same result as that of the instant, absent evidence to the contrary.

KEIL AND BECK:

Applicants argue that Keil accentuates the importance of chitosan by noting that care properties of the composition were improved over compositions “without the simultaneous presence of high molecular weight chitosonium-pyrrolidone carboxylate”. Accordingly, applicants argue that a skilled artisan would not find it obvious to replace chitosan of Keil with the sugars of Beck as Keil teaches away from Beck’s composition. However, instant “comprising” language allows for the presence of chitosan of Keil as well as the sugars of Beck, unless shown otherwise. Therefore, the rejection has been maintained.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

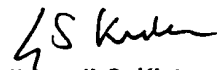
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lakshmi S Channavajjala whose telephone number is 571-272-0591. The examiner can normally be reached on 7.30 AM -4.00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K Page can be reached on 571-272-0602. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7924 for regular communications and 703-308-7924 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.



Lakshmi S Channavajjala
Examiner
Art Unit 1615



Gollamudi S. Kishore, PhD
Primary Examiner
Group 1500

February 2, 2004